[HIGH COURT OF AUSTRALIA.]

THE COMMISSIONER OF RAILWAYS (WESTERN AUSTRALIA) . . . DEFENDANT, } APPELLANT;

AND

STEWART AND OTHERS . . . . PLAINTIFFS, RESPONDENTS.

ON APPEAL FROM THE SUPREME COURT OF WESTERN AUSTRALIA.

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PERTH, *Sept.* 16, 17, 18, 21, 22.

MELBOURNE, *Nov.* 4.

Latham C.J., Dixon and McTiernan JJ.

Negligence—Water—Statutory authority—Embankment—Flooding.

In 1885 a railway embankment was constructed across a depression through which there ran one or more natural channels or streams carrying off surface water from a catchment on the higher side of a railway. The railway was then vested in the Crown and managed by a commissioner who was an unincorporated agency of the Crown. By the *Crown Suits Act* 1898 (W.A.) the Crown was made liable for tort, and by the *Government Railways Act* 1904 (W.A.) the railways were vested in the minister on behalf of the Crown, the commissioner was made a body corporate, and all actions against the Crown relating to railways or arising out of their management, maintenance and control were directed to be brought against him. In 1934 the embankment proved the cause of damage during a heavy downpour of rain. It obstructed the flow of water which was banked back on to private property on the upper side of the railway, and subsequently escaped through a breach in the embankment and flooded property on the other side. The culverts originally provided were insufficient to carry off an exceptional fall of water, and, although they had afterwards been increased, their capacity was not great enough. The fall in question was greater than had ever previously been experienced, but on the facts it was found to be not so great that no reasonably prudent engineer would provide against it.

Held, in an action against the Commissioner of Railways :—

(1) That he was liable for the consequences of negligent construction because the cause of action was not complete until the damage in 1933 and the statute of 1904 meant that he was the person properly to be sued in respect of any wrongs done in connection with the railways after the statute.

(2) That the construction of the railway was negligent, and the statutory authority to construct and maintain it afforded no answer to the action.

(3) That the downpour did not amount to an "act of God" and was not of such magnitude and intensity that no reasonably prudent person would anticipate and guard against it.

Decision of the Supreme Court of Western Australia (*Dwyer* J.) affirmed.

APPEAL from the Supreme Court of Western Australia.

Percy Andrew Victor Stewart and others brought an action in the Supreme Court of Western Australia against the Commissioner of Railways of that State whereby they claimed damages for the negligence of the defendant as a result of which the property of the plaintiffs suffered damage by flooding.

The statement of claim was substantially as follows :—

1. The defendant is the Commissioner of Railways appointed under the *Government Railways Act* 1904 (W.A.).

2. The defendant at some time or times prior to March 1934 artificially constructed as part of a railway an embankment from Macartney Street to South Street in York in the State of Western Australia.

3. The plaintiffs Stewart Henry Ashbolt, Hannah Ashbolt, and others are the owners and/or occupiers of certain parcels of land situate on the west side of the embankment.

4. The plaintiffs Eileen Veronica Windsor and others are the owners and/or occupiers of certain parcels of land on the east side of the embankment.

5. The embankment is constructed across land by reason of the contour of which, and/or across the course of a natural watercourse along which, water would and did in the course of nature flow from west to east and so into the Avon River on the east side of the embankment.

6. The embankment was so negligently constructed and/or maintained by the defendant that on or about 8th March 1934 water flowing down the said land and/or watercourse was obstructed by

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the embankment which caused the water to accumulate and be dammed up on the west side thereof and to flow into and cause damage to the lands, houses and premises of the plaintiffs referred to in par. 3.

7. The weight of the water so accumulated was so great that part of the embankment broke away and allowed the water on the west side to rush through and flow in great force into and over and cause damage to the lands, houses, shops and premises of the plaintiffs referred to in par. 4.

The particulars of negligence set out in the statement of claim were substantially as follows :—

(*a*) The defendant made no or insufficient provision for the flow of water through or under the embankment.

(*b*) The defendant constructed a culvert under the embankment at South Street, but failed to prevent water spilling over on the north side of the culvert.

(*c*) Certain culverts constructed by the defendant converge and have a common outlet which lessens the velocity and volume of water capable of flowing through such culverts and causes siltation, thereby rendering the culverts inefficient.

(*d*) The defendant erected and maintained a fence near the South Street culvert in such a position that debris accumulated and seriously obstructed the free flow of water through the culvert.

(*e*) The defendant took no or insufficient precautions to maintain the culverts in a proper state of repair, and neglected to keep them free of obstructions, which obstructed the flow of water and rendered them inefficient.

The defence set up by the defendant, apart from admissions, was substantially as follows :—

2. The embankment was constructed by the Crown in the year 1885, and has been used for railway purposes ever since.

5. The defendant denies that the contour of the land across which the embankment is constructed is such that water would naturally flow from west to east, or that such water would enter the Avon River to the east, or that the embankment is constructed across the course of a natural watercourse.

6. (*a*) The embankment was constructed under the provisions of an Act of the Parliament of Western Australia.

The defendant denied that the embankment was negligently constructed or maintained, that any water was obstructed or retarded by the embankment, that any water accumulated, or was dammed up by it, and that any water flowed into or damaged the lands, houses and premises of the plaintiffs. He further stated that if any flooding, or any retarding or accumulation of water occurred, it was caused by an unprecedented and unnatural fall of rain which could not reasonably have been foreseen, and by the failure of certain drains and culverts under the control of the municipality of York to cope with the resulting flood waters. The defendant did not admit that the embankment broke away or that any water on its west side flowed through the plaintiffs' properties.

The Supreme Court of Western Australia found that flooding and consequent damage occurred, that this was caused by the embankment and the fact that the culverts did not make reasonable provision for the escape of the water, and gave judgment for the plaintiffs.

From this decision the defendant appealed to the High Court.

Further facts appear in the judgments hereunder.

Wolff K.C. and *Sidney Good*, for the appellant.

Sir *Walter James* K.C. and *Ainslie*, for the respondents.

[Counsel referred to: *Nitro-Phosphate and Odam's Chemical Manure Co.* v. *London and St. Katharine Docks Co.* (1); *Halsbury's Laws of England*, 2nd ed., vol. 7, p. 210; *Nichols* v. *Marsland* (2); *Salmond* on *Torts*, 8th ed. (1934), pp. 583, 584; *Greenock Corporation* v. *Caledonian Railway* (3); *Ogston* v. *Aberdeen District Tramways Co.* (4).]

Cur. adv. vult.

(1) (1878) 9 Ch. D. 503.
(2) (1875) L.R. 10 Ex. 255; (1876) 2 Ex. D. 1.
(3) (1917) A.C. 556.
(4) (1897) A.C. 111.

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The following written judgments were delivered :—

LATHAM C.J. In this case several plaintiffs have instituted proceedings against the Commissioner of Railways of Western Australia claiming damages for negligence caused by flooding alleged to be due to the existence of a railway embankment placed across the natural direction of flow of rain-water. The amounts claimed by the several plaintiffs are in most cases below the appealable amount. No objection has been taken to the joinder in a single action of plaintiffs with several causes of action, and, the court being of opinion that a matter of general importance is raised, ordered, with the consent of the plaintiffs respondents, that special leave to appeal be given as against all the plaintiffs.

The plaintiffs' case is that the culverts under the embankment were insufficient to carry off a rainfall which occurred on 8th March 1934 and that water was thereby banked up above the embankment, damaging the property of certain of the plaintiffs on the west side of the embankment. The water ultimately broke through the embankment at its northern end and damaged the properties of other plaintiffs on the east side of the embankment. The defendant contends first that the culverts under the embankment were sufficient to take any flow of water that could reasonably be expected, and secondly, that the banking up of water on the west side of the embankment and the ultimate breaking through of water to the east was due to the insufficiency of the drain and culverts beyond the embankment on the east side, for which the local municipality and not the defendant was responsible. The defendant further contends that the rainfall on the day in question amounted to an "act of God" and that therefore, in the result, the defendant is not liable for any of the damage caused by the flooding. There is a further defence that the railway was constructed by the Commissioner for Railways (who was then an individual person) for the Crown in 1885 and that the management and control of it were subsequently vested by statute in the defendant (a statutory corporation). The defendant was bound to take it over in the condition in which it was and is therefore, it is urged, not liable for any defects in the original construction of the railway, its embankments and culverts.

The claim arises out of a common catastrophe, in which all the plaintiffs and the defendant were involved, at the town of York. The railway there runs along an embankment which lies generally in a north to south direction. The fall of the land is generally from west to east. Thus the embankment would necessarily hold back waters which would otherwise run freely towards the east. Accordingly culverts were provided under the embankment. The embankment is about eleven feet high at its highest point, and underneath the embankment two culverts run at the lowest point of the ground surface from west to east, and at the southern end of the embankment at South Street there is another culvert. The water from the two culverts joins the water from the South Street culvert and then runs in a common channel east to Howick Street, where it runs under the road in a culvert, thence running along a channel until it reaches a culvert at Craig's building and ultimately passing to the Avon River.

The learned judge, his Honour Mr. Justice *Dwyer*, decided in favour of the plaintiffs, damages to be ascertained by agreement, or, in default of agreement, by assessment. In the first place it will be convenient to determine whether, even if the original construction of the culverts was negligent, the defendant is under any liability for damage resulting from such negligence.

The railway in question was built and the embankment was constructed by the Crown in 1885. At that time the Crown was not liable in tort. The railway was vested in the Crown. The Commissioner of Railways, a person appointed by the Governor under the *Railways Act* 1878, sec. 5, was a person appointed under that section for making, completing, maintaining and working railways authorized to be constructed and maintained out of the public funds. He was, in the performance of all these functions, a servant of the Crown.

Sec. 6 provides that the commissioner may with the approval and consent of the Governor enter into contracts relative to the railways, and with the like approval and consent do and perform all other acts and things which by the Act he is authorized or required by the Act to do and perform. Sec. 6 also provides that the public revenue of the colony shall be answerable in respect of any contract or agree-

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ment entered into as aforesaid but not otherwise. The result of this latter provision is that though the commissioner could make railways, there was no remedy which could be satisfied out of public moneys for any negligence in their construction and the Crown could not be sued by reason of any such negligence.

The *Crown Suits Act* 1898 provides in sec. 22 that, subject to the provisions of the Act, whenever any person has any claim or demand against the Crown which has arisen or accrued within Western Australia since the coming into operation of the Act, that person may set forth in a petition the particulars of his claim or demand in the same manner as in a statement of claim in an action in the Supreme Court as between subject and subject.

Sec. 33 provides that no claim or demand shall be made against the Crown under the Act unless it is founded upon or arises out of some one of the causes of action mentioned in the section. These causes of action include :—" (2.) A wrong or damage, independent of contract, done or suffered in, upon, or in connection with a public work as hereinafter defined." The section provides that " public work " means for the purposes of the section, *inter alia*, any railway used or constructed by the government of the colony. The section also contains a provision that no action shall lie against the commissioner of Railways under the *Railways Act* 1878, or any amendment thereof, in respect of any claim or demand unless the same be founded upon or arise out of some one of the causes of action before mentioned in the section.

The result of these provisions is that a right of action is given in respect of a wrong done or damage suffered in connection with a railway used or constructed by the government. The *Government Railways Act* 1904, which by sec. 4 vests all railways in the minister on behalf of His Majesty, also provides that the commissioner, who is now made a body corporate (sec. 8), shall be the person against whom all actions &c. against the Crown relating to any railway or arising from the management, maintenance, or control thereof shall be brought (sec. 36).

The question which arises upon these provisions is whether the defendant commissioner is liable in respect of the negligent construction of a railway constructed by the Crown, at a time when the

Crown was not liable in tort, in cases where damage was caused by the negligence at a time after the passing of all the acts mentioned. In my opinion the action is based upon a wrong or damage done or suffered in connection with a public work within the meaning of sec. 33 of the *Crown Suits Act* 1898. That wrong or damage was done or suffered in 1934. It was not done or suffered until the damage actually happened. There was not and could not have been any right of action for wrong or damage until the wrong or damage actually occurred. I am therefore of opinion that at the time when this action was brought the plaintiffs had a right of action against the commissioner (in place of the Crown) for damage resulting from any original negligent construction of the railway.

Reference was made to the case of *Bourchier* v. *Victorian Railways Commissioners* (1). In that case it was held that the Victorian Railways Commissioners were not liable for any defects in the original construction by the Victorian Board of Land and Works of a railway which was subsequently vested in the commissioners by statute. The complaint was that the defendants negligently allowed the railway embankment to impede the natural flow of waters in the flood channel of the River Murray to the injury of the plaintiff. Under the relevant statutes the commissioners were bound to supervise and maintain the railway line. In order to prevent the damage occurring it would have been necessary to make a radical reconstruction of the railway line. In the circumstances, described in the judgment as constituting an exceptional case, the commissioners were held not to be liable. It is contended that this case establishes a principle that when by statute an undertaking is vested in a public authority and the public authority is required to supervise and maintain it, the authority is not bound to make any alterations or improvements for the purpose of preventing damage to private persons. In my opinion the argument founded upon this case is met by the special provisions of the Western Australian statutes to which I have referred. They specifically make the Crown liable where a wrong or damage is done in connection with a railway used or constructed by the Government, and provide that the commissioner in such a case is to be the defendant in the proceedings. In

(1) (1910) V.L.R. 385; 32 A.L.T. 48.

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Victoria the Crown is not liable for tort and the Railways Commissioners are a corporation not possessing that immunity from liability from tort which is one of the privileges of the Crown. Thus *Bourchier's Case* (1) is distinguishable from the present case. It therefore becomes necessary to consider whether the plaintiffs have made out a case against the defendant for negligence.

The learned judge heard a great deal of evidence with respect to the facts of the flooding on the 8th March 1934 and also much expert evidence. It will be convenient, I think, first to deal with the contention of the plaintiff that the rainfall on that day amounted to an "act of God," and that he was therefore excused from any liability or at least from liability for such portion of the damage as could be attributed to the "act of God" (Cf. *Nitro-Phosphate and Odam's Chemical Manure Co.* v. *London and St. Katharine Docks Co.* (2)).

The rainfall from 8 a.m. on the 8th March to 8 a.m. on the 9th March amounted to 578 points. The rain fell steadily until about 7.30 p.m. so that the ground became thoroughly saturated, and then the rain was much more violent for a period estimated at about an hour. Flooding occurred from about 7.30 p.m. and rapidly increased until 10 p.m. or thereabouts. The rainfall records available for York show that this was the heaviest fall at York for more than 50 years. The previous highest fall at York was 288 points on 19th May 1908. The March 1934 fall was a tropical rainfall. At Toodyay 772 points fell and at Northam 419 points. These places are each about 18 miles distant from York. Thus the rainfall at York was exceptionally great in total quantity over the 24 hours and was exceptionally heavy during a part of that 24 hours when the land had become saturated by earlier rain.

An "act of God" has been defined in various ways. In some definitions the idea appears that in order to be an "act of God" an event must be irresistible, for example, per *Mellish* L.J. in *Nugent* v. *Smith* (3), but the more generally received definition is stated by *James* L.J. in the same case (4), where it is said that an event is an "act of God" where it is shown that "it is due to natural

(1) (1910) V.L.R. 385; 32 A.L.T. 48.
(2) (1878) 9 Ch. D. 503.
(3) (1876) 1 C.P.D. 423, at p. 441.
(4) (1876) 1 C.P.D., at p. 444.

causes directly and exclusively, without human intervention, and that it could not have been prevented by any amount of foresight and pains and care reasonably to be expected."

In my opinion the evidence in this case only shows that there was a very heavy and continuous fall of rain including, at a particular time, rainfall of great intensity. There was a tropical storm such as occurs from time to time in many parts of Australia. The particular storm in question happened to be the most violent that had ever been experienced at York, but it cannot be said, in my opinion, to be such that it exceeded in amount that for which a reasonable man could have been expected to provide. As was said in *Attorney-General* v. *Cory Bros. & Co.* (1): "The rainfall . . . was no doubt unusually heavy, but it was of no unique character; nor of such as ought not to have been foreseen as possible." The utmost that can be said is that it was very heavy and continuous rain and not that it was so extraordinary as to be beyond human foresight. In my opinion, the contention that the rainfall amounted to an "act of God" has not been sustained.

It may be said that it is not necessary for the defendant, in order to escape liability, to prove that the rainstorm amounted to "an act of God," but that it is sufficient to show that it was an event against which a reasonable man could not have been expected to provide (See *Baldwin's Ltd.* v. *Halifax Corporation* (2), referred to in the judgment of my brother *Dixon*). As I have already said, in my opinion, the rainstorm was not an event of this character.

The case for the plaintiffs was based upon negligence. The negligence alleged consisted in the provision of insufficient culverts to take away the flow of the water in such a manner as to prevent flooding. A great deal of evidence was directed to this issue. The learned judge found that the culverts were insufficient and decided in favour of the plaintiffs. It will be most convenient to consider this aspect of the case in relation to the specific grounds of appeal to this court.

Five grounds are relied upon to support the contention that the judgment was against evidence and the weight of evidence.

(1) (1921) 1 A.C. 521, at p. 536. (2) (1916) 85 L.J. K.B. 1769.

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The first ground of appeal is as follows :—" The learned trial judge wrongly came to the conclusion that the water which was impounded behind the railway embankment after flowing through the Grey Street culverts and through the breakaway at Macartney Street joined to form one volume of water which rose to a level of 672 on the east side of the embankment thereby concluding that the rising of the water on the east side was due to the joining of these two streams."

On the western side of the embankment the water reached the 679 feet level as shown in the contour survey, and it broke through the embankment at Macartney Street, washing away the embankment to a depth of 7 feet from the top. On the eastern side the water reached the 672 feet level in the area into which water flowed from the railway culverts.

In my opinion a careful examination of the ground levels on the eastern side of the embankment, and particularly of the flood levels as established by undisputed evidence, shows that the learned judge fell into error in holding that the two streams of water mentioned in the first ground of appeal joined on the eastern side of the embankment. The water which broke through at the northern end of the embankment at Macartney Street and which flooded the plaintiffs' properties on the east, formed a separate body of water from that which flowed through the culverts mentioned. The importance of this question from the defendant's point of view depended upon its bearing upon the effect of impounded water below the embankment in causing a banking up on the western side of the embankment. If the Macartney Street water reached the other main body of water coming from the culverts, it would have raised the level of that water, would have drowned the railway culverts to a greater extent than would otherwise have happened, and would have been responsible for a corresponding rise in the water on the other (western) side of the drowned culverts. The contention on behalf of the defendant was that the Macartney Street water did not join the other water, that the other water all came from the culverts and that it would have got away with no effect in banking up water on the western side of the culverts if the channel on the east of the embankment and the culverts of the municipal council lower down that channel had been

properly constructed so as to be large enough to take the water that came through the railway culverts. The contention was that the council should have provided culverts sufficient to take the water from the railway culverts which flowed directly to them, that it did not do so, and that their insufficiency brought about a banking up on the lower side of the embankment of water which had passed through the railway culverts and that this banking up caused a great deal of the flood on the upper or western side of the embankment and also thereby brought about the break through at Macartney Street which caused the damage on the lower or eastern side.

Although, as I have said, the learned judge, in my opinion, was wrong in finding that the two bodies of water joined, still I consider that the evidence shows that the water between the eastern side of the embankment and the council's culvert at Howick Street further east was added to very substantially indeed by reason of the fact that cattle pits existed on the top of the embankment under the railway sleepers and that flood water got away through these pits, joining the water from the railway culverts which ran under the embankment. The water from the west flowed not only through the cattle pits but above them, washing away the ballast and the top surface of the embankment in the vicinity of the pits. Thus, although, in my opinion, the finding of the learned judge was wrong, the evidence shows that more water than flowed through the culverts came into the channel on the eastern side of the embankment. This must have been a large quantity of water, because it flowed through two cattle pits which each presented a face to the water of 7 feet by a depth of at least 2 feet. These facts, in my opinion, destroy the foundation for the argument of the defendant to which I have referred. Therefore, in my opinion, the fact that the learned trial judge wrongly came to the conclusion mentioned in the grounds of appeal is not a reason for upsetting his judgment.

The second ground of appeal is as follows: "The learned trial judge wrongly drew the conclusion from the evidence that the culverts downstream controlled by the York Municipal Council were not and could not have been responsible for any material banking up of the water on the upstream side; this conclusion is based on the assumption that even if the council's culverts were insufficient

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to cope with the water sent down to them from the railway culverts there was sufficient natural getaway over the surface of streets and intervening lands and is contrary to the admitted fact that the water reached a level of 672 downstream at the council's culvert at Howick Street."

Upon this question a great deal of evidence was given. Two experts were called for the plaintiffs together with many witnesses who saw the flood. One expert and other witnesses who saw the flood were called for the defendant. The evidence was conflicting. It is, however, I think, clear that there was evidence from which the learned judge could have drawn the conclusion mentioned. In the first place there was evidence that the council's culvert at Howick Street, with an effective inlet area of 32 square feet, was sufficient to carry the water which came from the three railway culverts, the effective inlet area of which was stated by an expert witness for the plaintiffs to amount only to 25 square feet in all. It is true that the defendant's expert contended that the effective area of the defendant's culverts was 34 square feet. The evidence, however, was conflicting, and the learned judge was entitled to accept not only the evidence of the plaintiffs' experts but also the evidence of a witness who swore that at the time of the heaviest fall, when there was already serious flooding on the west of the embankment, the Howick Street culvert was taking all the water, which was running freely under it. Thus the conclusion of the learned judge is not one which can only be justified on the assumption mentioned in the ground of appeal. It can be supported apart from any conclusions as to there being sufficient natural getaway over the surface of streets and intervening land. If the capacity of the council's culvert at Howick Street is as described by the witnesses for the plaintiffs, the conclusion mentioned is not contrary to the fact that the water reached the 672 feet level at the council's culvert at Howick Street. In this connection it is again important to remember the very substantial body of water which must have passed through the cattle pits and not through the culverts at all.

The third ground of appeal is as follows : " There was no evidence to support the finding of the learned trial judge that the flooding of the plaintiffs' premises would not have taken place if the railway

embankment had not been built." This ground raises rather speculative arguments. This, however, it appears to me, may be said with certainty—there is nothing to show that any of the plaintiffs' premises on the east of the embankment would have been flooded at all if the water which had been collected to a height of 679 feet by the embankment had not broken away by Macartney Street and rushed down upon these premises. Further, the mere difference of levels of the flood on the two sides of the embankment, at the 679 feet level on the upper side and the 672 feet level on the lower side, shows that the embankment itself had an effect in flooding the plaintiffs' premises on the western side of the embankment to a height which otherwise could not possibly have been reached. Expert evidence was given that if there had been no embankment there would have been no flooding west of the embankment. If the railway, instead of being run on the embankment, had been run across the depression upon an ordinary trestle bridge, there does not appear to be any reason to suppose that the plaintiffs' premises on the western side of the embankment would have been flooded at all. The earlier water would have got away much more quickly through the Howick Street culvert which it would have been running to full capacity at an earlier period. In view of the fact that damage was actually caused by flooding on the western side of the embankment, it rests upon the defendant to show affirmatively that if there had been no embankment there would nevertheless have been damage on the western side, and, although he has adduced a number of arguments upon the subject, these arguments are speculative and depend upon a line of reasoning which is challenged by the expert witnesses for the plaintiffs.

In my opinion, it was for the defendant to show affirmatively that the flooding of the plaintiffs' premises would have taken place even if the railway embankment had not been built. The learned judge was not satisfied that they had done so, and indeed was satisfied to the contrary. There was, in my opinion, evidence to support the finding which he actually made.

The fourth ground of appeal is as follows: "The learned trial judge disregarded evidence which was uncontradicted as to the

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abnormality and unprecedented nature of the storm on the day in question."

I have already considered this question in dealing with the subject of " act of God " and it is not necessary for me to add anything to what I have already said.

The fifth ground of appeal is as follows : " The learned trial judge wrongly came to the conclusion that the defendant's culverts under the railway embankment were insufficient, basing his conclusions on certain scientific works and ignoring evidence of actual experience in similar conditions in this State."

If, as I have already stated, it is proper to hold that the rainfall in question was not an " act of God " and that the defendant should have provided even for a rainfall of this magnitude, then it is plain that the defendant's culverts under the railway were not sufficient. A large quantity of water did not get through them but broke through the embankment at one end and also rushed through the cattle pits in the middle.

The sixth ground of appeal is as follows : " The decision of the learned trial judge that there was an obligation on the defendant to alter the construction of the railway embankment or to alter or enlarge the defendant's culverts through the railway embankment is wrong in law."

I have dealt with the basis of this contention in my examination of the relevant statutes in the earlier part of this judgment.

For the reasons given I am of opinion that the judgment of the Supreme Court should be affirmed and that the appeal should be dismissed with costs.

DIXON J. I agree that this appeal should be dismissed.

The railway embankment of which the plaintiffs complain was constructed before the Crown became liable in Western Australia for tort and before the Commissioner of Railways became a body corporate (sec. 8 of *Government Railways Act* 1904). But damage which occurred on 8th March 1934 is the gist of the particular cause of action sued upon. Of course damage without fault gives no cause of action. The railway was constructed on behalf of the Crown as undertaker acting under statutory powers. " The undertakers

are not responsible for damage which results as the natural consequence of the construction of an undertaking authorized by statute, nor are they responsible for damages resulting as a natural consequence of the maintenance and working of such an undertaking. But construction and maintenance and working must be conducted with reasonable care and skill in pursuance of the statutory authority; and if default is made in the exercise of such reasonable care and skill, whether in the original construction or in the subsequent maintenance and working, a person injured by such default has a right of action" (per *Atkin* J. (as he then was), *Baldwin's Ltd.* v. *Halifax Corporation* (1), the case of a road authority intercepting and concentrating water and other matter by a cutting on a hillside).

In *Gaekwar Sakar of Baroda* v. *Gandhi Kachrabhai* (2) the Privy Council applied the principle to a case such as the present where a railway embankment constructed under statutory power caused flooding. "The embankment was designed with so little skill" said Lord *Macnaghten* "that no proper provision was made for the passage of surface water . . . Powers of this sort are to be exercised with ordinary care and skill and with some regard to the property and rights of others."

Under sec. 33 (2) and (3) of the *Crown Suits Act* 1898, the Crown became liable for any wrong independent of contract done in connexion with any railway. The effect of sub-sec. 4 of that section in combination with sec. 36 of the *Government Railways Act* 1904 is to make the commissioner the party who is to be sued on behalf of the Crown upon such a cause of action. The fact that railways are vested in the minister on behalf of the Crown (sec. 4), that the commissioner is a corporation (sec. 8) and that the railways are placed under his management, maintenance and control (sec. 16) does not, in my opinion, either distribute the legal responsibilities arising from the conduct of the railway system, or separate the previous performance of the duties of care in the construction of railways from the present fulfilment of the obligations of maintenance. The railways remain the railways of the Crown, and, although the commissioner is the proper person against whom to enforce the liability, it is the

(1) (1916) 85 L.J. K.B., at p. 1771.
(2) (1903) L.R. 30 Ind. App. 60, at pp. 63, 64.

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Crown which is finally liable for wrongs committed in connexion with railways in the course of their construction and management. Further, I think it is immaterial that the construction of a railway took place before the imposition upon the Crown of a liability for tort. The cause of action now sued upon arose only when damage was suffered, and the *Crown Suits Act* appears to me to have deprived the Crown of its former immunity from liability for civil wrong in all cases where the cause of action became complete after its enactment.

The embankment in the present case was, in my opinion, constructed without a proper and sufficient provision for the escape of water, the natural flow of which it obstructed. The water flowed in a defined channel on either side of which it spread in times of heavy rainfall. The aggregate size of the culverts was increased in 1914, but, in spite of the fact that the country is not one which often experiences prolonged and intense falls of rain, the provision afforded by the culverts appears to have remained altogether inadequate.

Reasonable care in the construction of a railway requires that precautions should be taken to avert damage which the works might be expected to cause in extraordinary conditions as well as that arising in ordinary conditions. The constructing authority, or the operating authority, is not called upon to provide against events which, although imaginable, are so removed from the facts of experience that no reasonably prudent person would foresee and guard against them. But skill and care must be exercised by the authority to prevent damage arising from the works in events which may be uncommon or even hitherto unknown, if they are of a kind and degree that may be expected sometimes to occur.

In cases of the present description it is not accurate to say that, in order to escape liability for damage which as a matter of physical causation appears to be connected with the existence of its works, the authority must show that the substantial cause was an " act of God."

In the case of *Baldwin's Ltd.* (1) *Atkin* J. says, at p. 1774 :— " I do not think that in a case of this kind it is strictly correct to introduce the notions connoted by the phrase ' act of God.' The term is appropriate where liability is sought to be imposed upon a

(1) (1916) 85 L.J.K.B. 1769.

person who, by reason of his calling or otherwise, such as that of a common carrier, has assumed an absolute liability to see that the plaintiffs' property is left free from harm. Such absolute liability may be subject to an exception in respect of damage caused by act of God, which would ordinarily be defined as such an operation of the forces of nature as reasonable foresight and ability could not foresee or reasonably provide against. But where the liability sought to be imposed arises only from negligence it becomes necessary to consider whether all the requirements of the above definition have been fulfilled. All that is necessary for the defendants is to negative the plaintiffs' allegation that there has been an absence of reasonable care and skill on the part of the defendants. To show that the injury was caused by an act of God would no doubt establish the defendants' case, but it seems to me they may succeed without undertaking so heavy a burden. What I have to consider is whether the damage was caused by a storm of such magnitude that, under the circumstances, the defendants could not reasonably be expected to provide against its consequences."

His Lordship expresses a further view which qualifies, or at any rate amplifies, the last statement. He says, at p. 1774 :—" It was contended by counsel for the plaintiffs that, even if the rainfall reached such a height that the defendants could not reasonably have provided against it, yet, inasmuch as a much smaller storm would, by reason of the defendants' negligence, have damaged the plaintiffs' goods, the plaintiffs can recover, for the damages are agreed if any part of the injury done was due to the defendants' negligence. It becomes unnecessary to decide this point; but I think the facts warrant the application of the reasoning of the Court of Appeal in the case of *Nitro-Phosphate and Odam's Chemical Manure Co.* v. *London and St. Katharine Docks Co.* (1), and that the plaintiffs' contention herein is well founded."

The railway embankment in the present case is a physical feature of the land, constituting a chief cause of the flooding on its western side. The escape of pent-up waters at the northern end of the embankment, occurring, probably, at some time shortly after nine

(1) (1878) 9 Ch. D., at p. 527.

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o'clock in the evening, was the direct and actual cause of the inundation of places on the eastern side where some of the plaintiffs dwelt. It is, I think, quite clear that openings in the embankment might have been provided which would have discharged during heavy rainfall a quantity of water many times greater than that flowing through the existing culverts. If the capacity of the opening had been thus multiplied, a great part of the imprisoned water would have escaped without contributing to the damage of which the plaintiffs complain. What is the minimum capacity which would have satisfied the obligation resting upon the commissioner of exercising due care to provide for the escape of water may be difficult to determine. But I have no doubt that the actual provision falls far short of that minimum. Prima facie, therefore, the insufficiency of the waterways left by the railway is a cause of the damage suffered. In arriving at the conclusion that an authority charged with the construction or maintenance has failed to provide a sufficient waterway, a court is not bound to undertake the difficult engineering task of specifying precisely what flow of water should be allowed for and what means should be adopted for letting the water pass under or through the works constructed. No doubt before such a conclusion is reached, some opinion must be formed as to the catchment, the rainfall to be expected, the run off and also as to the practicability of dealing with the flow of water. In the present case, the most important consideration, that upon which views most differed, is the run off to be provided against. In my opinion the ten per cent run off allowed for by the railway engineers is shown to be a mistaken estimate. The source of error probably lies in a failure to allow for intensity of downpour supervening upon a period of rainfall in which the ground has become saturated.

The commissioner relies upon a combination of answers to the prima facie case of liability arising from the facts I have stated. He emphasizes the unusual amount and intensity of the rain that fell in the watershed on 8th March 1934. He contends that it was so unprecedented that no reasonable man would have foreseen it and provided against it, and that it so far exceeded the rainfall which any constructing engineer would have allowed for that no substantial damage would have been averted whatever provision

had been made unless the provision went far beyond that with which a prudent engineer would be content.

The duration of steady rain and the intensity of that falling late in the day does appear to have been for the locality very great indeed. The proof that it was unprecedented is not satisfactory. The records of previous rainfall given in evidence were confined to one place. In judging of such a matter a wide area should be considered and reasoning from analogy should play a part. But, in any case, the obligation of care resting on a constructing authority which, in the exercise of statutory powers, obstructs the natural flow of water is not fulfilled unless the authority provides not only against a repetition of what has previously happened but also against such variations of events found to be recurrent as might reasonably be expected to happen even if very rarely.

On the occasion now in question, the weather experienced was not of an unfamiliar kind. It was unusual only in degree, and the difference in degree arose apparently from the circumstance that heavy rainfall took place after saturation of the ground. I do not think the occurrence is one against which no prudent engineer would have provided. I am not prepared to say affirmatively that, if after due investigation, a construction had been adopted which made provision that had proved more than sufficient for every previous rainfall, the commissioner would have been liable as for negligence if some banking back of the waters had occurred on the day in question. But the actual facts are opposed to such assumptions. No proper investigation of the conditions appears to have been made. The openings in the embankment did not succeed in discharging previous rainfall. And I think it is reasonably certain that, if openings had been made large enough only to cope with a recurrence of what had previously occurred, a great deal of the damage would have been avoided. Accordingly the burden seems to me to lie upon the defendant of establishing clearly that, even if he had taken all precautions which could reasonably have been demanded of him, a thing which, in my opinion, he failed to do, yet no substantial part of the damage suffered by each plaintiff would have been escaped because the water flowing to the basin so far exceeded that for which the

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supposed precautions would provide. The evidence does not, in my opinion, establish this fact, or anything like it.

The contention that the flow of water was an unprecedented phenomenon which no reasonable outlet would receive was combined with the further contention that almost three and a half feet of the height of water which rose behind the embankment was to be accounted for by the conditions on the other side of the embankment. It was said that no adequate means were provided on the eastern side of the embankment for taking the water discharged by the railway culverts under or across the streets which lie on that side of the railway. For that reason and because of the grade and state of the channels and ground on the east, the commissioner asserted that a large part of the imprisoned water represented or reflected the retardation of the flow by conditions existing down stream for which he was not responsible. In many of the steps involved in this contention I agree. I think that the state of affairs existing on the eastern side of the embankment would raise the waters on the western side to a certain degree if the water flowing in on the west and reaching the mouth of the existing railway culverts were exactly equal to their present capacity. It is very difficult to measure or estimate the height to which the waters would be so raised. We had the advantage of a close and careful examination, by counsel on each side, of the levels and other considerations which govern or affect the question. My conclusion is that a level of about two feet would be reached as a result only of the retardation or banking back of water after the point of discharge from the railway culverts, assuming the inflow into the basin formed by the embankment and the discharge therefrom by the existing culverts were equal.

Further, I agree with the view that the outburst of water through the northern end of the embankment, where it crosses a road called Macartney Street, did not account for the water held back across the course of the channel leading from the railway culverts. The water discharged by the break in the bank at that point, in my opinion, could not have contributed to the damming back. Again, I do not think that this contention of the commissioner is met by the fact of the discharge of water through the two cattle pits which stand respectively over and somewhat north of the culverts in the

middle of the embankment. That discharge involved no destruction of the embankment and no sudden outburst of pent-up water. The rate of discharge from the cattle pits could not exceed the rate of intake into the basin on the west. Consequently, although operating at a higher level than the additional culvert, the cattle pits may be considered as really serving the purpose of affording just such a means of allowing waters to pass under the railway line as the commissioner should have provided at a lower level in the embankment. Nevertheless, I do not think that the operation of the conditions east of or down stream from the embankment relieves the commissioner from responsibility for any of the damage. So far as it affects the plaintiffs on the west, it does not do so because, in my opinion, the additional two feet by which the water might have been raised by such conditions cannot be regarded as an independent cause of the inundation they suffered. If the conditions downstream had not existed and a completely satisfactory discharge for all water sent under the railway had been maintained, the water in the westerly basin would have risen to the same height. This is shown to be the case by the outburst of water at Macartney Street which accounted for a great volume and by the continued flow through the cattle pits. I do not think that the commissioner can claim that, even if he had fulfilled his duty of care, yet if no corresponding reform had been made by the road authority some damage would or might have been suffered, when in fact the situation was that his actual means of taking off the water were insufficient to prevent the water rising to the full height of his embankment and so doing the very same damage as occurred even if conditions downstream had caused no rising of the waters on the westerly side.

Further, it does not appear that any ascertainable or separable part of the damage actually done by the retention of such a huge body of water as mounted to the full height of the embankment could be ascribed to the first or preliminary rise of two feet.

Different considerations affect the commissioner's liability to the plaintiffs whose property is on the east side of the railway. It may be said that, but for the additional two feet, the water might not have spilt over the embankment at Macartney Street and so cut it back and caused a breach in it through which the imprisoned waters

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burst and flowed over the premises of those plaintiffs. It is difficult to say whether it would have done so or not. But I think that even so the plaintiffs on the east are entitled to complain of the embankment and the insufficiency of the culverts through it. For they would not have received the water they did but for the existence of the embankment which imprisoned it. A rise of two feet in the water behind the embankment would not have affected them. The cause of the damage suffered by them was the impounding of a volume of water sufficient to cause the outburst.

For these reasons I think the appeal should be dismissed with costs.

McTIERNAN J. I agree that the appeal should be dismissed. The cause of action sued upon was negligence. It is obvious that the water naturally flowing from Cut Hill to the Avon River in the two water courses and over the low-lying lands crossed by the embankment would be obstructed if provision were not made to avoid this result. The embankment from the lowest point is 11 feet high and it runs for about 1,000 feet from above Macartney Street as far south as South Street, and Grey Street crosses it by means of a ramp between these two streets. The houses of the plaintiffs on the west side were flooded by waters obstructed by the embankment, and the houses of the plaintiffs on the eastern side were flooded by a volume of water which broke through the embankment at Macartney Street.

The learned trial judge found that the culverts in the embankment did not give a sufficient outlet for waters which would be expected to be dammed back by the embankment. Counsel for the appellant and the respondents respectively attacked and defended this finding in elaborate arguments based on the evidence of the expert witnesses and proved facts. The finding is amply supported by the evidence and in my opinion was right. While maintaining that the culverts running through the embankment were sufficient according to standards which could be deduced from a combination of practical experience and engineering theory, appellant's counsel sought to account for an estimated height of water on the western side of the embankment by obstruction downstream on the eastern side caused by culverts constructed by the local authority and by other causes

impeding the flow of the water for which the railway authority was not responsible. In any case it was contended that the torrential and unprecedented downpour which happened on 8th March 1934 in the locality was a deluge due to an "act of God" and for this reason the defendant should be excused for the totality of the damage.

It may be true that the flood would not have risen to the height which it attained despite the insufficiency of the railway culverts if there were no cause of impedance down stream. But the appellant's argument, which is combated with at least equally cogent theories by the respondents' counsel, has not established, in my opinion, that, but for such causes external to the railway works, the embankment would not have dammed back sufficient water to cause damage to the respondents. The disproof of the learned judge's finding, that the water which broke through the embankment at Macartney Street did not join the water issuing from the railway culverts, does not remove the doubt as to the correctness of the appellant's estimate of the height of water not attributable to any deficiency in the railway culverts. For it is evident that the waters flowing from the culverts at the eastern side of the embankment were very considerably increased by the water which flowed through the cattle pit on the railway line nearer to Grey Street.

Culverts of the dimensions which the respondents' witnesses said were demanded by all the factors necessary to be considered would not, it was pointed out by the appellant's counsel, have coped with the waters which came down the water courses on this occasion and spread to the plaintiffs' properties. But again it is not shown that the inadequacy of the culverts did not cause a big enough accumulation on the western side and a sufficiently concentrated flow over Macartney Street, where the water did not naturally flow, to cause damage to the plaintiffs on both sides of the embankment. It was not a necessary consequence of the exercise of the statutory authority under which the works were constructed that this damage should follow. This damage could have been avoided by the provision of a sufficient outlet for the waters which would be reasonably expected to flow against the railway works that had been erected. There was no duty of absolute insurance against damage arising from the exercise of the power but there was a duty to exercise it with due

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prudence and caution. I agree with the conclusion that the rainfall on 8th March was not a deluge of such magnitude and intensity that it should be classed as an "act of God." The culverts should have been capable of dealing with the most prolonged and intense downpour of rain which in the climate of Western Australia might be expected, though perhaps rarely, to occur ; the rain on this occasion did not exceed this standard (Cf. *Great Western Rail. Co. of Canada* v. *Braid* (1)). Prima facie the damage done to the respondents was the reasonable and probable result of the default of the constructing authority in the observance of its duty to provide sufficient culverts, and the appellant has not discharged the onus of showing that the damage was due to other intervening causes. In any event it would not be possible to distribute the damage due to the default and the damage, if any, due to other causes beyond the reasonable prevision of the responsible authority (Cf. *Fry* J. in *Nitro-Phosphate and Odam's Chemical Manure Co.* v. *London and St. Katharine Docks Co.* (2)).

I agree that upon the proper construction of the *Government Railways Act* 1904, secs. 35 and 36, and the *Crown Suits Act* 1898, sec. 33 (4), the appellant is the party liable to be sued for the damage caused to the plaintiffs by this breach of duty in the execution of the work.

Appeal dismissed with costs.

Solicitor for the appellant, *A. A. Wolff* K.C., Crown Solicitor for Western Australia.

Solicitor for the respondents, *H. Haynes*, Perth.

(1) (1863) 1 Moo. P.C.C. (N.S.) 101.

(2) (1878) 9 Ch. D., at p. 519.